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REMARKS

Claim 1 has been amended, and the features of claim 2 have been added to claim 1. Claim 2 has been cancelled. Applicant requests entry of the amendment.

Claim 1 stands rejected under 35 U.S. §103(a) as being unpatentable over Fletcher in view of Winter. Claim 1 has been amended to include the feature of claim 2. The rejection of claim 1 has been overcome.

Claims 1 and 24-27 stand rejected under 35 U.S. §103(a) as being unpatentable over Ripka in view of Fletcher and Winter. Claim 1 has been amended to include the features of claim 2, overcoming this rejection. Ripka discloses an air heating apparatus 11 including copper heat pipes 201. An evaporating part 204 of the heat pipes 201 is located inside a combustion chamber 13, and a condensing part 205 of the heat pipes 201 is located inside an air heating chamber 14. The tubes can be straight 201b or u-shaped 201a. A radiant burner 15 blocks the path of the pipes 201. Therefore, some of the heat pipes 201a are u-shaped to accommodate the radiant burner 15, which extends through the u-shaped portion of the pipes 201a as shown in Figure 2. Fletcher discloses a method for manufacturing a heat exchanger article 1. The heat exchanger article 1 includes a plurality of injected molded polyamide tubes 4 transversely located between end elements 2 and 3 (column 8, lines 17 to 24). Winter teaches a process of preparing polyolefins having a wide molecular weight distribution and a high molecular weight. The Examiner contends it would be obvious to form the heat transfer component of Ripka of norbornene because of Fletcher and Winter, and therefore Applicant's claims are obvious. Applicant respectfully disagrees.

In Ripka, the tubes 201 are made of copper (column 6, lines 39 to 40), a non-polymer material. There is no suggestion in Ripka to make the tubes 201 of any other material other than a metal, and there is certainly no suggestion to form the tubes 201 of norbornene, which is a good polymer.

Additionally, Fletcher teaches that the tubes 4 are parallel and linear. It would not be possible to employ linear tubes in Ripka due to the presence of the radiant burner 15. Ripka employs u-shaped pipes 201b to provide clearance for the radiant burner 15 (column 4, lines 47 to 49). It would not be possible to employ linear tubes in Ripka due to the presence of the radiant burner 15, and claims 24-27 are not obvious.

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Claims 24-27 are further not obvious in view of Ripka, Fletcher and Winter. Claims 24-27 claim a first tube of norbornene positioned in the opening formed by a second u-shaped tube of norbornene. It is not possible to locate a straight pipe 201b between the u-shaped pipes 201a of Ripka. As shown in Figure 2, the pipes 201a are u-shaped to accommodate a radiant burner 15. Due to the presence of the radiant burner 15, it is not possible to position a straight pipe 201b between the opening defined by a u-shaped pipe 201a as in the claimed invention. Claims 24-27 are further not obvious, and Applicant respectfully requests that the rejection be withdrawn.

Claims 2-6, 10, 11 and 21-23 stand rejected under §103(a) as being obvious over Ripka in view of Fletcher, Winter, Ninomiya and Taga. The Examiner states that Ninomiya and Taga teach extruded tubes, and it would be obvious to extrusion mold the tubes in Ripka, Fletcher and Winter. Applicant respectfully disagrees.

It would not be obvious to extrusion mold the tubes of Ripka, Fletcher and Winter. Even if the tubes of Ripka were made of norbornene, the combination would teach again extrusion molding the tubes. In Fletcher, the article 1 (including the tubes 4 and the end elements 2 and 3) is manufactured as an integral unit by an injection molding process (column 4, lines 55-58). This is a disclosed benefit of Fletcher. If the tubes 201 of the apparatus 11 of Ripka were extruded, the apparatus 11 could not be manufactured as an integral unit, ruining this disclosed benefit of Fletcher. There is no suggestion to form the tubes of Ripka, Fletcher and Winter by extrusion, and Claims 2-6, 10, 11 and 21-23 are not obvious. Applicant respectfully requests that the rejection be withdrawn.

Additionally, claims 5, 6, 10 and 11 are further not obvious. These claims require a first tube positioned in the opening of a second u-shaped tube. It is not possible to position a straight pipe 201b between the u-shaped pipe 201a of Ripka. As shown in Figure 2, the pipes 201a are u-shaped to accommodate a radiant burner 15. Due to the presence of the radiant burner 15, it is not possible to position a straight pipe 201b between the opening defined by a u-shaped pipe 201a as in the claimed invention. Claims 5, 6, 10 and 11 are not obvious, and Applicant respectfully requests that the rejection be withdrawn.

Thus, claims 1 and 3-10 and 12-27 are in condition for allowance. No additional fees are seen to be required. If any additional fees are due, however, the Commissioner is authorized to

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charge Deposit Account No. 50-1482, in the name of Carlson, Gaskey & Olds, P.C., for any additional fees or credit the account for any overpayment. Therefore, favorable reconsideration and allowance of this application is respectfully requested.

Respectfully Submitted,

CARLSON, GASKEY & OLDS, P.C.

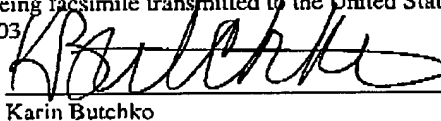


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CERTIFICATE OF FACSIMILE

I hereby certify that this correspondence is being facsimile transmitted to the United States Patent and Trademark Office, 703-872-9306 on December 8, 2003.



Karin Butchko

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